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Summary Health Statistics for the U.S. Population: National Health Interview Survey, 2004

Series 10:
Data From the National Health Interview Survey
No. 229

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

Hyattsville, Maryland
July 2006
DHHS Publication No. (PHS) 2006-1557

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Abstract

Objectives

This report presents both age-adjusted and unadjusted health statistics from the 2004 National Health Interview Survey (NHIS) for the civilian noninstitutionalized population of the United States, classified by sex, age, race, Hispanic or Latino origin and race, education, family income, poverty status, health insurance coverage (where appropriate), place of residence, and region of residence. The topics covered are respondent-assessed health status, limitations in activities, special education or early intervention services, injuries and poisonings, health care access and utilization, and health insurance coverage.

Source of Data

NHIS is a household, multistage probability sample survey conducted annually by interviewers of the U.S. Census Bureau for the Centers for Disease Control and Prevention's National Center for Health Statistics. In 2004, household interviews were completed for 94,460 persons living in 36,579 households, reflecting a household response rate of 86.9%.

Selected Highlights

Nearly 7 in 10 persons were in excellent or very good health in 2004. About 34 million persons (12%) were limited in their usual activities due to one or more chronic health conditions, and about 4 million persons (2%) required the help of another person with activities of daily living. About 6% of children received special education or early intervention services. Among persons under age 65 years, about 41 million (17%) did not have any health insurance coverage. The most common reason for lacking health insurance was cost, followed by a change in employment.

Keywords: health status, activity limitation, ADL, IADL, special education, early intervention services, injuries, poisonings, health care access, health insurance coverage

Acknowledgments

The authors would like to thank Jeannine S. Schiller of DAQAB/DHIS/NCHS/CDC for her expert programming advice in the preparation of the tables for this report. This report was edited by Klaudia M. Cox and typeset by Zung T.N. Le, Office of Information Services, Information Design and Publishing Staff.

Summary Health Statistics for the U.S. Population: National Health Interview Survey, 2004

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Introduction

This report is one in a set of reports summarizing data from the 2004 National Health Interview Survey (NHIS), a multipurpose health survey conducted by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS). This report provides national estimates for a broad range of health measures for the U.S. civilian noninstitutionalized population. Two other reports in this year's set provide data on health measures for children and for adults (1,2). These three data reports are published for each year of NHIS (3-5), and they replace the annual, one-volume Current Estimates series (6). Estimates are presented here for respondent-assessed health status, limitation in activities, special education or early intervention services, injury and poisoning episodes, health care access and utilization, and health insurance coverage. They are derived from the Family Core component of the annual NHIS Basic Module. These estimates are shown in Tables 1-25 for various subgroups of the population, including those defined by sex, age, race, Hispanic or Latino origin and race, educational attainment for persons aged 25 years and over, family income, poverty status, health insurance coverage, place of residence, and region of residence. Estimates for other characteristics of special relevance are also included, where appropriate. Appendix I contains brief technical notes including information about age adjustment and unknown

values (Tables I-IV). Appendix II contains definitions of terms used in this report, and Appendix III contains tables of unadjusted estimates (Tables V-XIX).

NHIS has been an important source of information about health and health care in the United States since it was first conducted in 1957. Given the ever-changing nature of the U.S. population, the NHIS questionnaire has been revised every 10-15 years, with the latest revision occurring in 1997. The first design changes were introduced in 1973, and the first procedural changes in 1975 (7). In 1982, the NHIS questionnaire and data preparation procedures of the survey were extensively revised. The basic concepts of NHIS changed in some cases, and in other cases the concepts were measured in a different way. A more complete explanation of the 1982 changes is in Appendix IV of Series 10, No. 150 (8). In 1985, a new sample design for NHIS and a different method of presenting sampling errors were introduced (9,10). In 1995, another change in the sample design was introduced, including the oversampling of black and Hispanic persons (11).

In 1997, the NHIS questionnaire was substantially revised and the means of administration was changed to computer-assisted personal interviewing. This new design improved the ability of NHIS to provide important health information. However, comparisons of data from 1997-2004 to data from 1996 and earlier years should not be undertaken without a careful examination of the changes across survey instruments (6,8,10).

In response to the changing demographics of the U.S. population, in 1997 the Office of Management and Budget (OMB) issued new standards for collecting data on race and Hispanic or Latino origin (12). Most notably, the new standards allow respondents to the census and Federal surveys to indicate more than one group in answering questions on race. Additionally, the category "Asian or Pacific Islander" is now split into two distinct categories, "Asian" and "Native Hawaiian or Other Pacific Islander" (NHOPI), for data collection purposes. Although NHIS had allowed respondents to choose more than one race group for many years, NHIS became fully compliant with all the new race and ethnicity standards with the fielding of the 1999 survey. The tables in this report reflect these new standards. The text in this report uses shorter versions of the new OMB race and Hispanic or Latino origin terms for conciseness, but the tables use the complete terms. For example, the category "Not Hispanic or Latino, black or African American, single race" in the tables is referred to as "non-Hispanic black" in the text. Although the tables contain information for persons of two or more races, the "Selected Highlights" section focuses on persons reporting one race.

Additionally, beginning in the 2003 NHIS, editing procedures were changed to maintain consistency with the U.S. Census Bureau procedures for collecting and editing data on race and ethnicity. As a result of these changes, in cases where "other race" was mentioned along with one or more OMB race groups, the "other race" response is dropped, and the OMB race group information is retained on the NHIS data file. In cases where "other race" was the only race response, it is treated as missing and the race is imputed. Although this change has resulted in an increase in the number of persons in the

OMB race category “white” because this is numerically the largest group, the change is not expected to have a substantial effect on the estimates in this report. More information about the race/ethnicity editing procedures used by the Census Bureau can be found at the following website: http://www.census.gov/popest/archives/files/MRSF-01-US1.pdf.

New This Year

Between 2003 and 2004, changes were made to the injury and poisoning questions. In 2003, respondents were asked three questions to determine the number of injuries and poisonings that occurred to any family members within the past 3 months that were serious enough to require medical advice or treatment. All three questions asked about both injuries and poisonings. In 2004, respondents were asked 10 questions to determine the number of injuries and poisonings that occurred to any family members within the past 3 months that were serious enough to require talking to, seeing, or consulting a medical professional, and examples of types of injuries and poisonings were also mentioned. Five of the questions asked about injuries, and five of the questions asked about poisonings. To view the NHIS questionnaires, visit the NHIS home page at http://www.cdc.gov/nchs/nhis.htm.

Beginning in 2004, imputation was performed for injury and poisoning episodes for which the respondent had not provided sufficient information to determine a month, day, and year of occurrence. Imputation was done so that for all episodes it would be possible to calculate a specific elapsed time in days between the date of the injury or poisoning episode and the date the injury or poisoning questions were asked.

In Summary Health Statistics for 2003 (4), injury and poisoning estimates were calculated using the full 3-month recall period to which the questions referred. In 2004, estimates were calculated using only those injuries or poisonings that occurred 5 weeks or less before the date the injury and poisoning questions were asked. For further details about changes to the injury or poisoning questions and analytic methods, see the "Methods" section and Appendix I of this report.

Methods

Data Source

The main objective of NHIS is to monitor the health of the U.S. population through the collection and analysis of data on a broad range of health topics. The target population for NHIS is the civilian noninstitutionalized population of the United States. Persons excluded are patients in long-term care institutions (e.g., nursing homes; hospitals for the chronically ill, disabled, or retarded; and wards for abused/neglected children); correctional facilities (e.g., prisons or jails, juvenile detention centers, or halfway houses); active duty Armed Forces personnel (although their civilian family members are included); and U.S. nationals living in foreign countries. Each year, a representative sample of households across the country is selected for NHIS, using a multistage cluster sample design. Details on sample design can be found in Design and Estimation for the National Health Interview Survey, 1995-2004 (11). Trained interviewers from the U.S. Census Bureau visit each selected household and administer NHIS in person. Detailed interviewer instructions can be found in the NHIS Field Representative's Manual (13).

The annual NHIS questionnaire, now called the Basic Module or Core, consists of three main components: the Family Core, the Sample Adult Core, and the Sample Child Core. The Family Core, the source of data for this report, collects information for all family members regarding household composition and sociodemographic characteristics, along with basic indicators of health status, limitation in activities, and utilization of health care services. All members of the household 17 years of age and over who are at home at the

time of the interview are invited to participate and respond for themselves. For children and adults not available during the interview, information is provided by a knowledgeable adult family member (18 years of age or over) residing in the household. Although considerable effort is made to ensure accurate reporting, the information from both proxies and self-respondents may be inaccurate because the respondent is unaware of relevant information, has forgotten it, does not wish to reveal it to an interviewer, or does not understand the intended meaning of the question.

The Sample Adult and Sample Child Cores obtain additional information on the health of one randomly selected adult and child in the family. The sample adult responds for himself/herself, and a knowledgeable adult in the family provides proxy responses for the sample child. In rare instances when the sample adult is mentally or physically incapable of responding, proxy responses are accepted for this person.

The interviewed sample for 2004 consisted of 36,579 households, which yielded 94,460 persons in 37,466 families. The total noninterview rate was 13.1%. Of this 13.1%, 8.0% was the result of respondent refusal and unacceptable partial interviews. The remainder was primarily the result of failure to locate an eligible respondent at home after repeated calls (14).

Estimation Procedures

The estimates presented in this report are weighted, using the Person Record Weight, to provide national health estimates. For each health measure, both weighted frequencies and percentages (or rates) for all persons and for various subgroups of the population are shown. All counts are expressed in thousands. Counts for persons of unknown status with respect to each health characteristic of interest are not shown separately in the tables, nor are they included in the calculation of percentages (and/or rates), to make the presentation of the data more straightforward. For all health measures in this report, the percentages with unknown values are typically small (generally less than 1%) and are shown in Appendix I. Nevertheless, these unknown cases are included in the total population counts shown in selected tables. Therefore, it should be noted that the reader may obtain slightly different percentages than those shown in the tables if he or she elects to calculate percentages based on the frequencies and population counts presented in the tables.

Additionally, some of the sociodemographic variables used to delineate various subgroups of the population have unknown values. For most of these variables, the percentage unknown is small. However, in the case of family income, there is no income information for about 11% of respondents in the 2004 survey, and 18% of respondents stated that their combined family income was either less than $20,000 or $20,000 or more without providing additional detail. As a result, poverty status, which is based on family income, has a high nonresponse rate (15). Health estimates for persons with unknown

sociodemographic characteristics are not shown in the tables. See Appendix I for more information on the extent of unknown data for income and poverty status.

Injuries and Poisonings

In 1997-2003, the Injury and Poisoning Episodes files contained only those episodes that were reported to occur within either 104 days or within 4 months of the interview and episodes where the date of the injury or poisoning was not reported. However, a decision was made in 2004 to retain all injury and poisoning episodes that reportedly occurred during the 3 months (91 days) prior to the date the injury and poisoning questions were asked, based on responses to family level questions.

Between 2003 and 2004, changes were made to the injury and poisoning questions. In 2003, respondents were asked three questions to determine the number of injuries and poisonings that occurred to any family members within the past 3 months that were serious enough to require medical advice or treatment. All three questions asked about both injuries and poisonings. In 2004, respondents were asked 10 questions to determine the number of injuries and poisonings that occurred to any family members within the past 3 months that were serious enough to require talking to, seeing, or consulting a medical professional, and examples of types of injuries and poisonings were also mentioned. Five of the questions asked about injuries, and five of the questions asked about poisonings. To view the NHIS questionnaires, visit the NHIS home page at http://www.cdc.gov/nchs/nhis.htm.

Beginning in 2004, imputation was performed for injury and poisoning episodes for which the respondent had not provided sufficient information to determine a month, day, and year of occurrence. Imputation was done so that for all episodes, it would be possible to calculate a specific elapsed time in days between the date of the injury or poisoning episode and the date the injury or poisoning questions were asked.

In 2003, injury and poisoning estimates were calculated using the full 3-month recall period to which the questions referred. A study by Warner, et al., (16) showed that as the recall period increases, the annualized number of injuries and poisonings reported decreases because respondents tend to forget less serious injuries and poisonings. Based on recommendations from this study, the 2004 injury and poisoning estimates were calculated using only those injuries and poisonings that occurred 5 weeks or less before the date the injury and poisoning questions were asked.

Due to changes in the injury and poisoning section, imputation of unknown dates of injury and poisoning episodes, and the use of a 5-week period rather than a 3-month recall period to calculate annualized estimates, estimates for 2004 are not comparable to estimates from prior years.

Transition to the 2000 Census-Based Weights

In Summary Health Statistics reports prior to 2003, the weights for NHIS data were derived from 1990 census-based postcensal population estimates. Beginning with 2003

data, NHIS transitioned to weights derived from the 2000 census-based population estimates. The impact of this transition was assessed for the 2002 NHIS by comparing estimates for selected health characteristics using the 1990 census-based weights with those using the 2000 census-based weights. Furthermore, the effect of new population controls on survey estimates differed by type of health characteristic. The person health estimates and sample adult health estimates were more affected than sample child estimates. For health estimates expressed as weighted percentages, 0.27% of the person estimates and 0.27% of the sample adult estimates were significantly different. None of the sample child estimates were significantly different. For weighted frequencies, 13% of the person estimates, 16% of the sample adult estimates, and 1% of the sample child estimates were significantly different (17).

Age Adjustment

Beginning with the 2002 report, estimates are provided in two sets of tables. The first set (Tables 1-25) was age adjusted to the 2000 U.S. standard population. Age adjustment was used to permit comparison among various sociodemographic subgroups that may have different age structures (18,19). Unless otherwise noted, the age groups used for age adjustment are the same age groups presented in the tables. The age-adjusted estimates in this report may not match age-adjusted estimates for the same health characteristic in other reports if different age groups were used for age adjustment. Appendix III provides tables with unadjusted estimates so that readers may compare current estimates with those published in the 1997-2001 Summary Health Statistics reports and may see the

effects of age adjustment on the 2004 estimates (see Appendix I for details on age adjustment). Frequency tables have been removed from the unadjusted set of tables in Appendix III to eliminate redundancy.

Limitations of the Data

As mentioned above, the redesigned NHIS is quite different in content, format, and mode of data collection from earlier versions of the survey. These changes can make it complex to compare 1997-2004 NHIS estimates with those of earlier years. Beginning in 2003, NHIS uses weights derived from the 2000 census-based population estimates. Analysts who compare NHIS frequencies across this transition (e.g., comparing 2004 to 2002) need to recognize that some of the observed differences may be due to the change in the population estimates. Unadjusted percentage estimates shown in the Appendix III tables may be compared with those published in Summary Health Statistics reports of 1997-2001, which did not contain age-adjusted estimates. Age-adjusted estimates in this report should not be compared with earlier unadjusted estimates unless it can be demonstrated that the effect of age adjustment is minimal.

It is important to note that frequencies are underestimates due to item nonresponse and unknowns, both of which are excluded from the tables (with the exception of the "All persons" or "Total" columns shown in each table). See Appendix I for more information about the number of unknowns with respect to each health characteristic.

Users familiar with the NHIS injury and poisoning data are probably aware of the decline in the overall number of injuries and poisonings reported since the injury and poisoning section was added to NHIS in 1997. Between 2003 and 2004, there was an increase in injury and poisoning episodes. This increase can be attributed to the redesign of the injury and poisoning section, imputation of unknown dates of injury and poisoning episodes, and the use of a 5-week period rather than a 3-month recall period to calculate annualized estimates. The changes have improved the accuracy of the data, but there still may be some underreporting.

Interpretation of estimates should only be made after reviewing Appendix I, which contains important information about the methods used to obtain the estimates, changes in the survey instrument, and measurement issues that are currently being evaluated.

Variance Estimation and Significance Testing

NHIS data are based on a sample of the population and are, therefore, subject to sampling error. Standard errors are reported to indicate the reliability of the estimates. Estimates and standard errors were calculated using SUDAAN software, which takes into account the complex sampling design of NHIS. The Taylor series linearization method was used for variance estimation in SUDAAN (20).

Standard errors are shown for all rates and percentages in the tables (but not for the frequencies). Estimates with relative standard errors of greater than 30% and less than or equal to 50% are considered statistically unreliable and are indicated with an asterisk (*). Estimates with relative standard errors greater than 50% are indicated with a dagger (†) and are not shown. The statistical significance of differences between point estimates was evaluated using two-sided t-tests at the 0.05 level and assuming independence. Terms such as “greater than,” “less than,” “more likely,” “less likely,” “compared with,” or “opposed to” indicate a significant difference between estimates, whereas “similar,” “no difference,” or “comparable” indicate that the estimates are not significantly different. A lack of commentary about any two estimates should not be interpreted to mean that a t-test was performed and the difference found to be not significant. Furthermore, these tests did not take multiple comparisons into account.

Further Information

Data users can obtain the latest information about NHIS from the NCHS website: http://www.cdc.gov/nchs/nhis.htm.

This website features downloadable public use data and documentation for recent National Health Interview Surveys, as well as important information about any modifications or updates to the data or documentation.

Researchers may also wish to join the NHIS electronic mailing list. To do so, go to http://www.cdc.gov/subscribe.html.

Fill in the appropriate information and click the "National Health Interview Survey (NHIS) researchers" box, followed by the "subscribe" button at the bottom of the page. The listserve consists of approximately 4,000 NHIS data users located around the world who receive e-news about NHIS surveys (e.g., new releases of data or modifications to existing data), publications, conferences, and workshops.

Selected Highlights

In this section, brief, bulleted summaries of the estimates shown in Tables 1-25 are presented. Estimates were age adjusted by the direct method to the 2000 standard U.S. population. In most cases, the age groups used to adjust estimates are the same age groups presented in the tables (see table notes for age-adjustment groups). All estimates were calculated using the Person Record Weight variable, which is calibrated by NCHS staff to produce numbers consistent with the population estimates of the United States by age, sex, and race/ethnicity, based on projections from the 2000 U.S. Census.

Respondent-Assessed Health Status (Tables 1, 2)

- Nearly 7 in 10 persons were in excellent or very good health, and fewer than 1 in 10 persons were in fair or poor health.

- Almost one-third of adults aged 75 years and over had fair or poor health.

- Asian persons (37%) and white persons (37%) were more likely than black persons (29%) to be in excellent health.

- The percentage of persons in excellent health increased with increased levels of education and family income.

- College graduates (40%) were more than twice as likely as persons who had not graduated from high school (15%) to be in excellent health.

- Persons with family incomes of $75,000 or more (48%) were almost twice as likely as those with family incomes of less than $20,000 (24%) to be in excellent health.

- Among persons under age 65 years, those with private health insurance were more likely than persons with other types of health insurance or persons who were uninsured to be in excellent health.

- Persons who lived in an MSA were more likely than persons who did not live in an MSA to be in excellent health.

Limitation in Usual Activities (Tables 3,4)

- About 34.2 million persons (12%) were limited in their usual activities due to one or more chronic health conditions.

- Prevalence of limitation in usual activities due to one or more chronic conditions increased with age: 6% of children under age 12 years had an activity limitation compared with 16% of adults aged 45-64 years and 44% of adults aged 75 years and over.

- Asian persons were about half as likely as white or black persons to be limited in their usual activities due to one or more chronic conditions.

- Persons with the least education and the lowest family incomes were the most likely to have an activity limitation.

- Persons under age 65 years who had private health insurance, as well as those who were uninsured, were less likely than persons who had Medicaid or some other type of health insurance to have an activity limitation.

- Persons aged 65 years and over with both Medicare and Medicaid were more likely to have an activity limitation than persons with private health insurance, Medicare only, or some other type of health care coverage, or those who were uninsured.

Limitation in Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs) (Table 5)

- About 3.7 million adults (2%) required the help of another person with ADLs such as eating, dressing, or bathing, and 7.6 million (4%) required help with IADLs such as household chores or shopping.

- Among adults aged 75 years and over, about 10% required the help of another person with ADLs, and 19% required help with IADLs.

- Poor adults were three to four times as likely as those who were not poor to require help with ADLs and IADLs.

- Persons under age 65 years who had private health insurance, as well as those who were uninsured, were less likely to need help with ADLs or IADLs than were persons who had Medicaid or some other type of health insurance.

- Persons aged 65 years and over who had both Medicaid and Medicare were more likely than others to need help with ADLs and IADLs.

Limitation in Work Activity (Table 6)

- About 10.2 million adults (5%) aged 18-69 years were unable to work due to health problems, and 6.5 million (3%) were limited in the kind or amount of work they could do because of their health.

- Persons aged 45-64 years and 65-69 years were about three times as likely to be unable to work due to health reasons than persons aged 18-44 years.

- About 2% of Asian adults aged 18-69 years were unable to work for health reasons compared with 5% of white adults and 8% of black adults.

- Persons with the least education and the lowest incomes were the most likely to be unable to work due to health problems.

- Persons under age 65 years who had private health insurance were less likely to be limited in their work activity than persons who had Medicaid or other types of health insurance.

- Poor non-Hispanic white persons (23%) and poor non-Hispanic black persons (23%) were nearly twice as likely as poor Hispanic persons (11%) to be unable to work.

Special Education or Early Intervention Services (Table 7)

- About 4.4 million children under age 18 years were receiving special education or early intervention services in 2004.

- Overall, 6% of U.S. children received special education or early intervention services, with boys being almost twice as likely as girls to receive such services.

- Children in poor families (8%) and near-poor families (7%) were more likely than children in not-poor families (6%) to receive special education or early intervention services.

- Children covered by Medicaid were more likely than children with private health insurance or children without any health insurance to receive special education or early intervention services.

- Children in the Northeast and the Midwest were more likely than children in the South or West to receive special education or early intervention services.

- Non-Hispanic white children who were poor or near poor were more likely than those who were not poor to receive special education or early intervention services.

- Poor Hispanic children were less likely than poor non-Hispanic white children to receive special education or early intervention services.

Incidence of Medically Consulted Injury and Poisoning Episodes (Table 8)

- In 2004, there were 33.2 million medically consulted injury and poisoning episodes among the U.S. civilian noninstitutionalized population, a rate of 115 episodes per 1,000 population per year.
- The rate of medically consulted injury and poisoning episodes among white persons (120 per 1,000 population) was higher than the rates among black persons (91 per 1,000 population) and Asian persons (56 per 1,000 population).

- The rate of medically consulted injury and poisoning episodes among non-Hispanic persons (125 per 1,000 population) was higher than the rate for Hispanic persons (63 per 1,000 population).

- Persons who were in fair health had higher rates of medically consulted injury and poisoning episodes than persons who had excellent or very good health.

Causes of Injury and Poisoning Episodes (Tables 9, 10)

- The three leading external causes of medically consulted injury episodes were falls (12.0 million episodes in 2004), overexertion (4.8 million episodes), and struck by a person or an object (3.9 million episodes).

- For males, the rate of injury resulting from being struck by a person or object was almost two times the rate for females.

- For non-Hispanic white persons, the rate of injury due to a fall was about two times the rates for non-Hispanic black persons and Hispanic persons.

Activity at Time of Injury and Poisoning Episodes (Tables 11, 12)

- About 8.9 million medically consulted injury and poisoning episodes occurred while engaging in nonsport leisure activities, 5.3 million episodes occurred while working at a paid job, and 5.1 million episodes occurred while participating in sports.

- The rates of medically consulted injury and poisoning episodes that occurred while working at a paid job or participating in sports were about twice as high for males than for females.

- The rates of medically consulted injury and poisoning episodes that occurred while participating in sports, working at a paid job, or engaging in nonsport leisure activities were two to three times as high for non-Hispanic persons as for Hispanic persons.

- The rate of medically consulted injury and poisoning episodes that occurred while working at a paid job was nearly twice as high for persons not living in a metropolitan statistical area (MSA) as for persons living in a large MSA.

Place of Occurrence of Injury and Poisoning Episodes (Tables 13,14)

- In 2004, 8.6 million medically consulted injury and poisoning episodes occurred inside the home, and another 6.7 million occurred outside the home.

- Streets and highways (4.4 million episodes) and recreation areas (4.0 million episodes) were the next most common locations for medically consulted injuries and poisonings, following those occurring outside the home.

- The rate of medically consulted injury and poisoning episodes occurring inside the home was higher for females than for males, whereas the rate of medically consulted injury and poisoning episodes occurring at recreation areas was higher for males than for females.

- The rate of medically consulted injury and poisoning episodes occurring inside the home was higher for persons aged 75 years and over compared with persons under 12 years, 18-44 years, 45-64 years and 65-74 years.

- Rates of medically consulted injury and poisoning episodes occurring inside the home or outside the home were nearly twice as high for non-Hispanic persons as for Hispanic persons.

- The rate of medically consulted injury and poisoning episodes occurring in a street, highway, sidewalk, or parking lot was about twice as high for persons in the lowest income group as for persons in the highest income group.

Access to Medical Care (Table 15)

- About 22.3 million persons (8%) delayed medical care in the last year due to cost, and another 15.7 million (6%) did not receive needed care due to cost of care.

- Adults aged 18-64 years were more likely than older adults and children to delay or not receive medical care due to cost.

- Persons with the least education were more than three times as likely as persons with the most education to have not received needed medical care due to cost, and they were about twice as likely to have delayed care for this reason.

- Persons in the lowest income group were five times as likely as persons in the highest income group to delay medical care due to cost and about ten times as likely to not get needed medical care.

- Persons who were uninsured were more likely than persons who were insured to delay or not receive needed medical care due to cost.

- Persons who were in fair or poor health were four to five times as likely as persons who were in excellent or very good health to delay or not receive needed medical care due to cost.

Overnight Hospital Stays (Tables 16,17)

- About 17.8 million persons (6%) stayed overnight in the hospital once in the past 12 months, about 3.3 million persons (1%) stayed overnight on two occasions, and almost 2 million persons had three or more overnight hospital stays during the year.

- Persons aged 65 years and over were more likely than younger persons to have stayed in the hospital overnight in the past 12 months.

- Persons with the lowest incomes were more likely to have stayed overnight in the hospital than persons with higher incomes.

- Among persons under age 65 years, those with Medicaid were more than twice as likely as persons who had private health insurance and those who were uninsured to have stayed overnight in the hospital once in the past year.

Type of Health Insurance Coverage (Tables 18,19)

- Among persons under age 65 years, 173 million (69%) had private health insurance, 30 million (12%) had Medicaid, and 41 million (17%) were uninsured.

- Children under age 12 years were the most likely to have Medicaid coverage compared with persons in other age groups, and adults aged 18-44 years were the most likely to be uninsured.

- Among persons under age 65 years, white persons and Asian persons were more likely than black persons or American Indian or Alaska Native persons to have private health insurance coverage.

- Hispanic persons under age 65 years (35%) were more than two and one-half times as likely as non-Hispanic persons (13%) under age 65 years to be uninsured.

- Among poor persons under age 65 years, about 4 in 10 had Medicaid coverage and about 3 in 10 were uninsured.

- Persons under age 65 years who were in fair or poor health were nearly four times as likely as persons under age 65 years who were in excellent or very good health to have Medicaid coverage.

- Health insurance coverage is nearly universal among persons aged 65 years and over, although the types of coverage vary by demographic characteristics.

- Among the 35 million adults aged 65 years and over in 2004, 20.6 million (60%) had private health insurance, and 9.0 million (27%) had Medicare alone.

- About 380,000 persons aged 65 years and over (1%) were uninsured in 2004.

- Among persons aged 65 years and over who were poor, 30% were covered by Medicaid and Medicare combined, 35% by Medicare only, and 25% by private health insurance.

- Among persons aged 65 years and over who were not poor, 70% were covered by private health insurance, and 21% were covered by Medicare only.

Periods Without Health Insurance Coverage Among Currently Insured Persons Under Age 65 Years (Tables 20,21)

- Among persons under age 65 years who were currently covered by health insurance, approximately 199 million (95%) had health insurance continuously over the preceding 12-month period.

- Among currently insured persons under age 65 years, about 5% had been without insurance at some time in the past year--most of these for 6 months or less.

- Currently insured persons aged 45-64 years were less likely than younger persons to have experienced a period without health insurance in the past year.

- Poor and near poor persons under age 65 years who had health insurance were more than twice as likely as not poor persons to have been without health insurance at some time in the past year.

Length of Time Since Last Covered by Health Insurance Among Currently Uninsured Persons Under Age 65 Years (Tables 22,23)

- Among persons under age 65 years who were uninsured at the time of the interview, 11 million (27%) had been without health insurance for more than 36 months, and 10 million (27%) had never had coverage.

- Uninsured males (30%) were more likely than uninsured females (23%) to have never had health insurance.

- Uninsured children under age 12 years were the most likely to have been without insurance for 6 months or less compared with older persons.

- Uninsured persons aged 45-64 years were the most likely to have been without health insurance for more than 36 months compared with younger persons.

- Among persons who were not covered by health insurance, Hispanic persons (51%) were more than three and one-half times as likely as non-Hispanic persons (14%) to have never had health insurance coverage.

- Uninsured persons living in the West were more likely than uninsured persons living in the Northeast, Midwest, or South to have never had health insurance.

Reasons for No Health Insurance Coverage Among Currently Uninsured Persons Under Age 65 Years (Tables 24,25)

- Among persons under age 65 years who were without health insurance coverage, 20.3 million persons (53%) lacked coverage due to cost, and 10.0 million (27%) lacked coverage due to a change in employment.

- Uninsured females were about twice as likely as uninsured males to not have coverage due to a change in marital status or death of a parent.

- Children under 12 years (20%) were nearly seven times as likely as adults aged 45-64 years (3%) to not have coverage due to cessation of Medicaid or other public coverage.

- Non-Hispanic persons (33%) were twice as likely as Hispanic persons (16%) to be without health insurance coverage due to loss of a job or a change in employment.

- Persons with a high school diploma or higher education were about one and one-half times as likely as persons who had not graduated from high school to be without health insurance coverage due to loss of a job or a change in employment.

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Appendix I

Technical Notes on Methods

This report is one of a set of statistical reports published by the staff of the National Center for Health Statistics (NCHS). It is based on data contained in the 2004 inhouse Person File, which are derived from the Family Core component of the National Health Interview Survey (NHIS). All estimates were weighted using the Person Record Weight and the inhouse data file. All data used in the report are also available from the public-use data files, with the exception of detailed information on race and Hispanic or Latino origin and on the sample design. The detailed sample design information was used to produce the most accurate variance estimates possible. Detailed sample design variables and detailed information on race and Hispanic or Latino origin cannot be made available on the public-use file due to potential disclosure of confidential information. Standard errors produced by using the SUDAAN statistical package are shown for all percentages and rates in the tables (20). Estimates with relative standard errors greater than 30% and less than or equal to 50% are considered unreliable and are indicated with an asterisk (*). Estimates with relative standard errors greater than 50% are considered unreliable, are indicated with a dagger (†), and are not shown. The relative standard errors are calculated as follows:

$$\text{Relative standard error} = (\text{SE}/\text{Est})100,$$

where SE is the standard error of the estimate, and Est is the estimate (percent, rate, or frequency). The reliability of frequencies and the reliability of the corresponding

percentages (or rates) are determined independently. It is possible for a particular frequency to be reliable and its associated percentage (or rate) unreliable and vice versa. In most instances, however, both estimates were reliable (or unreliable) simultaneously.

Data shown in tables 1-25 were age adjusted using the 2000 U.S. standard population provided by the U.S. Census Bureau (18,19). Age adjustment was used to allow comparison among various population subgroups that have different age structures. This is particularly important for demographic characteristics such as race and ethnicity, education, and marital status. It is also helpful for other characteristics.

Age-adjusted rates are calculated by the direct method as follows:

$$Est = \frac{\sum_{i=1}^{n} r_i p_i}{\sum_{i=1}^{n} p_i},$$

where r_i = rate in age group i in the population of interest,
p_i = standard population in age group i,
n = total number of age groups used for age adjustment,
and
EST = the age-adjusted rate.

The standard age distribution used for age adjusting estimates from NHIS is the 2000 U.S. standard population. Table I shows the age distributions used in the DESCRIPT and RATIO procedures of SUDAAN to perform age adjustment. Unless otherwise noted, the age groups used to adjust estimates are the same age groups presented in the tables. Using different age groups for age adjustment may result in slightly different estimates. For this reason, age-adjusted estimates for health characteristics in this report may not match age-adjusted estimates for the same health characteristics in other reports. Unadjusted estimates were also calculated and are provided in Appendix III.

For more information on the derivation of age-adjustment weights for use with NCHS survey data, see Klein and Schoenborn (19). That report is available through the NCHS home page at http://www.cdc.gov/nchs/data/statnt/statnt20.pdf. The year 2000 U.S. standard resident population is available through the U.S. Census Bureau home page at http://www.census.gov/prod/1/pop/p25-1130/p251130.pdf.

In the tables, all unknown values (respondents coded as “refused,” “don't know,” or “not ascertained”) with respect to each table's variables of interest were removed from the denominators when calculating row percentages (or rates). In most instances, the overall number of unknowns is quite small and would not have supported disaggregation by the demographic characteristics included in the table. Because these unknowns are not shown separately, users calculating their own percentages based on the frequencies and population counts presented in the tables may obtain slightly different results. To aid

users' understanding of the data, weighted counts and percentages of unknowns (with respect to the variables of interest in each table) are shown in Tables II and III.

Unknowns with respect to the demographic characteristics used in each table are not shown due to small cell counts. However, unknowns for both family income and poverty status typically include a sizable number of persons regardless of the health outcome shown in the table. Because it is difficult to interpret the relationship between "unknown" income (or poverty status) and the health outcomes displayed in the tables, counts of persons in these unknown categories are not shown in the tables. Table IV shows weighted counts and percentages of persons in the U.S. population with unknown values for family income and poverty status as well as education and health insurance coverage.

The "Income and Assets" section in the Family Core of the NHIS instrument allowed respondents to report their family income in several ways. Respondents are first asked to provide their family's total combined income before taxes from all sources for the previous calendar year in a dollar amount (from $0 up to $999,995). Any family income responses greater than $999,995 are entered as $999,996. Those respondents who did not know or refused to state an amount were then asked if their family's combined income in the previous calendar year was $20,000 or more or less than $20,000. If they again refused to answer or said that they did not know, they were not asked any more questions about their family income. Those respondents who did reply to the "above-below $20,000" question were then handed a list of detailed income categories (top-coded at

$75,000 or more) and asked to pick the interval containing their best estimate of their family's combined income. NHIS respondents thus fall into one of four categories with respect to income information: those who supplied a dollar amount (68% of the 2004 sample), those who indicated their income from a fairly detailed set of intervals (3% of the sample), those who said that their family's income was either $20,000 or more or less than $20,000 (18% of the sample), and those who provided no income information (11% of the sample). Respondents who stated that their family income was below $20,000 are included in the "Less than $20,000" category under "Family Income" in the tables in this report, along with respondents who gave a dollar amount or an interval estimate that was less than $20,000. Likewise, respondents who stated that their family income was at or above $20,000 are included in the "$20,000 or more" category under "Family Income," along with those respondents who gave a dollar amount or an interval estimate that was $20,000 or more. Users should note that the counts for the detailed (indented) amounts do not sum to the count shown for "$20,000 or more" for this reason.

A recoded poverty status variable is formed for those respondents who supplied either a dollar amount or an interval estimate for their family's income. This variable is the ratio of the family's income in the previous calendar year to the appropriate 2003 poverty threshold (given the family's size and number of children) defined by the U.S. Census Bureau (15). Persons who are categorized as "poor" had a ratio less than 1.0; that is, their family income was strictly below the poverty threshold. The "near poor" category includes those persons with family incomes of 100% to less than 200% of the poverty threshold, and "not poor" persons have family incomes that are 200% of the poverty

threshold or greater. The remaining groups of respondents--those who would only indicate that they were at or above $20,000 versus below $20,000, as well as those who refused to provide any income information--are, by necessity, coded as “unknown” with respect to poverty status. Family income information is missing for 11% of the U.S. population, and poverty status information is missing for 29% of the U.S. population (weighted results). Eleven percent of the NHIS sample is missing information on income, and 30% of the NHIS sample is missing information on poverty status (unweighted results).

Estimates of injury and poisoning episodes by their cause are derived from ICD-9-CM external cause codes (i.e., E codes) that describe the cause of the episode. A person may experience multiple injury or poisoning episodes.

Beginning in 2004, imputation was performed for injury and poisoning episodes for which the respondent had not provided sufficient information to determine a month, day, and year of occurrence. Imputation was done so that for all episodes, it would be possible to calculate a specific elapsed time in days between the date of the injury or poisoning episode and the date the injury or poisoning questions were asked. Provision of elapsed time is important because as the recall period increases, the annualized number of injuries and poisonings reported decreases because respondents tend to forget less serious injuries and poisonings (16). Based on recommendations from a study by Warner, et al. (16), the 2004 injury and poisoning estimates were calculated using only

those injuries and poisonings that occurred five weeks or less before the date the injury and poisoning questions were asked.

In 2003, there were approximately 24 million medically attended injury and poisoning episodes (annualized, based on a 3-month recall period). In 2004, there were approximately 33 million medically consulted injury and poisoning episodes (annualized, based on episodes that occurred less than or equal to 5 weeks before the date the injury and poisoning questions were asked). This increase can be attributed to the redesign of the injury and poisoning section, imputation of unknown dates of injury and poisoning episodes, and the use of a 5-week period rather than a 3-month recall period to calculate annualized estimates. The various changes have improved the accuracy of the data, but there still may be some underreporting. Due to changes in the injury and poisoning section, imputation of unknown dates of injury and poisoning episodes, and the use of a 5-week period rather than a 3-month recall period to calculate annualized estimates, estimates for 2004 are not comparable to estimates from prior years.

Frequencies presented in Tables 8, 9, 11, and 13 were annualized by multiplying the counts for the 5-week period by 10.4 to produce annualized frequencies. Rates presented in Tables 8, 10, 12, 14, XI, XII, and XIII were calculated using the annualized frequencies.

Changes in the Survey Instrument

Between 2003 and 2004, many changes were made to the Family Core Injury/Poisoning Section of NHIS. Note that an additional response category (sidewalk) was added to the question "Where {were/was} {person} when the injury/poisoning happened?" In Tables 13, 14, and XIII, the response category "sidewalk" is included with response categories "street or highway" and "parking lot." For more details about the changes made to the "Injury/Poisoning Section," see the Injury Addendum to the 2004 Survey Description Document. This document is available through the NHIS home page at http://www.cdc.gov/nchs/nhis.htm.

Two additional questions were added to the health insurance section of NHIS beginning with the third quarter of 2004. One question, MCAREPRB, was asked of persons 65 years and over who had not indicated that they had Medicare. This question is: "*People covered by Medicare have a card which looks like this. {Are/Is} {person} covered by Medicare*?" The other question, MCAIDPRB, was asked of persons under age 65 years who had not indicated any type of coverage. This question is: "*There is a program called Medicaid that pays for health care for persons in need. In this state it is also called {state name}. {Are/Is} {person} covered by Medicaid*?"

Respondents who originally classified themselves as uninsured, but whose classification was changed to Medicare or Medicaid on the basis of a "yes" response to either probe question, subsequently received appropriate followup questions concerning periods of noncoverage for insured respondents.

Of the 892 people (unweighted) who were eligible to receive the MCAREPRB question in the third and fourth quarters of 2004, 55.4% indicated that they were covered by Medicare. Of the 9,146 people (unweighted) who were eligible to receive the MCAIDPRB question in the third and fourth quarters of 2004, 3.0% indicated that they were covered by Medicaid. Estimates for this report are calculated including the responses to the two additional probe questions. For a complete discussion of the implications of the addition of these two probe questions on the estimates for insurance coverage, see Cohen and Martinez (21). This report is available through the NCHS home page at http://www.cdc.gov/nchs/products/pubs/pubd/hestats/impact.htm.

Hypothesis Tests

Two-tailed tests of significance were performed on all the comparisons mentioned in the "Selected Highlights" section of this report (no adjustments were made for multiple comparisons). The test statistic used to determine statistical significance of the difference between two percentages was

$$Z = \frac{\left| X_a - X_b \right|}{\sqrt{S_a^{\,2} + S_b^{\,2}}},$$

where X_a and X_b are the two percentages being compared, and S_a and S_b are the SUDAAN-calculated standard errors of those percentages. The critical value used for two-sided tests at the 0.05 level was 1.96.

Appendix II

Definitions of Selected Terms

Sociodemographic Terms

Age--The age recorded for each person is the age at the last birthday. Age is recorded in single years and grouped using a variety of age categories depending on the purpose of the table.

Education--The categories of education are based on the years of school completed or highest degree obtained for persons aged 25 years and over. Only years completed in a school that advances a person toward an elementary or high school diploma, General Educational Development high school equivalency diploma (GED), college, university, or professional degree are included. Education in other schools or home schooling is counted only if the credits are accepted in a regular school system.

Family income--Each member of a family is classified according to the total income of all family members. Family members are all persons within the household related to each other by blood, marriage, cohabitation, or adoption. The income recorded is the total income received by all family members in the previous calendar year. Income from all sources includes wages, salaries, military pay (when an Armed Forces member lived in the household), pensions, government payments, child support or alimony, dividends, and help from relatives. Unrelated individuals living in the same household (e.g., roommates) are considered to be separate families and are classified according to their own incomes.

Health insurance coverage--NHIS respondents were asked about their health insurance coverage at the time of interview. Respondents reported whether they were covered by private insurance (obtained through the employer or workplace, purchased directly, or purchased through a local or community program), Medicare, Medigap (supplemental Medicare coverage), Medicaid, State Children's Health Insurance Program (SCHIP), Indian Health Service (IHS), military coverage (including VA, TRICARE, or CHAMP-VA), a state-sponsored health plan, another government program, or any single service plans. This information was used to form two health insurance hierarchies: one for those under age 65 years and another for those aged 65 years and over.

For persons under age 65 years, a health insurance hierarchy of four mutually exclusive categories was developed (22,23). Persons with more than one type of health insurance were assigned to the first appropriate category in the hierarchy listed below:

Private coverage--Includes persons who had any comprehensive private insurance plan (including health maintenance organizations and preferred provider organizations). These plans include those obtained through an employer, purchased directly, or purchased through local or community programs.

Medicaid--Includes persons who do not have private coverage, but who have Medicaid or other state-sponsored health plans, including SCHIP.

Other coverage--Includes persons who do not have private coverage or Medicaid (or other public coverage), but who have any type of military health plan (includes VA, TRICARE, and CHAMP-VA) or Medicare. This category also includes persons who are covered by other government programs.

Uninsured--Includes persons who have not indicated that they are covered at the time of the interview under private health insurance (from employer or workplace, purchased directly, or through a state, local government or community program), Medicare, Medicaid, SCHIP, a state-sponsored health plan, other government programs, or military health plan (includes VA, TRICARE, and CHAMP-VA). This category also includes persons who are only covered by IHS or only have a plan that pays for one type of service such as accidents or dental care.

For persons aged 65 years and over, a health insurance hierarchy of five mutually exclusive categories was developed (24). Persons with more than one type of health insurance were assigned to the first appropriate category in the hierarchy listed below:

Private coverage--Includes older persons who have both Medicare and any comprehensive private health insurance plan (including health maintenance organizations and preferred provider organizations). These plans include those obtained through a current or former employer, purchased directly, or purchased through local or community programs. This category also includes persons with private insurance only.

Medicare and Medicaid--Includes older persons who do not have any private coverage, but who have both Medicare and Medicaid or other state-sponsored health plans including SCHIP.

Medicare only--Includes older persons who only have Medicare coverage.

Other coverage--Includes older persons who have not been previously classified as having private, Medicare and Medicaid, or Medicare-only coverage. It includes older persons who have only Medicaid, other state-sponsored health plans, or SCHIP. It also includes persons who have any type of military health plan (VA, TRICARE, and CHAMP-VA) with or without Medicare.

Uninsured--Includes persons who have not indicated that they are covered at the time of the interview under private health insurance (from employer or workplace, purchased directly, or obtained through a state, local government, or community program), Medicare, Medicaid, Children's Health Insurance Program, a state-sponsored health plan, other government programs, or military health plan (VA, TRICARE, and CHAMP-VA). This category also includes persons who are covered by only IHS or who only have a plan that pays for one type of service such as accidents or dental care.

Hispanic or Latino origin and race--Hispanic or Latino origin and race are two separate and distinct concepts. Persons of Hispanic or Latino origin may be of any race. Hispanic or Latino origin includes persons of Mexican, Puerto Rican, Cuban, Central and South American, or Spanish

origins. All tables show Mexicans or Mexican-Americans as a subset of Hispanic or Latino. Other groups are not shown for reasons of confidentiality or statistical reliability.

In the 1997 and 1998 Summary Health Statistics reports, Hispanic ethnicity was shown as a part of race/ethnicity, which also included categories for non-Hispanic white, non-Hispanic black, and non-Hispanic other (some tables showed Mexican Americans as a subset of Hispanics). Beginning in 1999, the categories for race were expanded to be consistent with the 1997 Office of Management and Budget (OMB) federal guidelines (12), and a distinction is now made between the characteristics of race and of Hispanic or Latino origin and race. In addition to reporting estimates according to race, estimates are reported for groups classified by Hispanic or Latino and race. Hispanic or Latino origin and race is divided into "Hispanic or Latino" and "Not Hispanic or Latino." "Hispanic or Latino" includes a subset of "Mexican or Mexican American." "Not Hispanic or Latino" is further divided into "white, single race" and "black or African American, single race." Persons in these categories indicated only a single race group (see the definition of race in this appendix for more information). Data are not shown for other "not Hispanic or Latino single race" persons or multiple-race persons due to statistical unreliability as measured by the relative standard errors of the estimates (but are included in the total for "not Hispanic or Latino").

The text in this report uses shorter versions of the new OMB race and Hispanic or Latino origin terms for conciseness, and the tables use the complete terms. For example, the category "Not Hispanic or Latino, black or African American, single race" in the tables is referred to as "non-Hispanic black" in the text.

Place of residence--Place of residence is classified as inside or outside a metropolitan statistical area (MSA). Generally, an MSA consists of a county or group of counties containing at least one city or twin cities with a population of 50,000 or more, plus adjacent counties that are metropolitan in character and are economically and socially integrated with the central city. In New England, towns and cities rather than counties are the units used in defining MSAs. The number of adjacent counties included in an MSA is not limited, and boundaries may cross state lines. The metropolitan populations in this report are based on MSAs as defined in the 1990 census. In the tables for this report, place of residence is based on a variable in the 2004 Person data file indicating MSA size. This variable is collapsed into three categories: MSAs with a population of 1,000,000 or more, MSAs with a population of less than 1,000,000, and non-MSA areas.

Poverty status--Poverty status is based on family income and family size using the U.S. Census Bureau's poverty thresholds. “Poor” persons are defined as below the poverty threshold. “Near poor” persons have incomes of 100% to less than 200% of the poverty threshold. “Not poor” persons have incomes that are 200% of the poverty threshold or greater. Appendix I has more information on the measurement of family income and poverty status.

Race--In the 1997 and 1998 Summary Health Statistics reports, race/ethnicity consisted of four categories: non-Hispanic white, non-Hispanic black, non-Hispanic other, and Hispanic (some tables showed Mexican Americans as a subset of Hispanics). Beginning in 1999, the categories for race were expanded to be consistent with the 1997 OMB federal guidelines (12), which now distinguish persons of “1 race” from persons of “2 or more races.” The category

"1 race" refers to persons who indicated only a single race group, and it includes subcategories for white, black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander. The category "2 or more races" refers to persons who indicated more than one race group. Data for multiple-race combinations can only be reported to the extent that the estimates meet the requirements for confidentiality and statistical reliability. In this report, three categories are shown for multiple-race individuals (a summary category and two multiple-race categories: black or African American and white or American Indian and Alaska Native and white). Other combinations are not shown separately due to statistical unreliability as measured by the relative standard errors of the estimates (but they are included in the total for "2 or more races").

Prior to 2003, "other race" was a separate race response on NHIS, although it was not shown separately in the tables of the Summary Health Statistics reports. In the 2003 NHIS, however, editing procedures were changed to maintain consistency with the U.S. Census Bureau procedures for collecting and editing data on race and ethnicity. As a result, in cases where "other race" was mentioned along with one or more OMB race groups, the "other race" response is dropped, and the OMB race group information is retained on the NHIS data file. In cases where "other race" was the only race response, it is treated as missing and the race is imputed. Although this change has resulted in an increase in the number of persons in the OMB race category "white" because this is numerically the largest group, the change is not expected to have a substantial effect on the estimates in this report. More information about the race/ethnicity editing procedures used by the U.S. Census Bureau can be found at the following website:

http://www.census.gov/popest/archives/files/MRSF-01-US1.pdf.

The text in this report uses shorter versions of the new OMB race terms for conciseness, and the tables use the complete terms. For example, the category “Black or African American, single race” in the tables is referred to as “black” in the text.

Region--In the geographic classification of the U.S. population, states are grouped into the four regions used by the U.S. Census Bureau:

Region	*States included*
Northeast	Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania;
Midwest	Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska;
South	Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas;
West	Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Colorado, Montana, Wyoming, Alaska, and Hawaii

Terms Related to Health Characteristics or Outcomes

Limitation in activities of daily living (ADLs)--Activities of daily living include such activities as bathing, eating, dressing, getting in or out of a bed or chair, using the toilet, or getting around inside the home. Persons were limited in ADLs if they required the help of other persons with any of these activities due to a physical, mental, or emotional problem. Data in this report are shown only for persons aged 18 years and over, although the questions were asked of or about persons aged 3 years and over. Persons with a limitation in ADLs (Table 5) are a subset of persons who were limited in usual activities (Tables 3, 4).

Limitation in instrumental activities of daily living (IADLs)--Instrumental activities of daily living include everyday household chores, doing necessary business, or shopping. Persons aged 18 years and over were classified as limited in IADLs if they required the help of other persons with any of these activities due to a physical, mental, or emotional problem. Persons with a limitation in IADLs (Table 5) are a subset of persons who were limited in usual activities (Tables 3, 4).

Limitation in usual activities--Limitation in usual daily activities is an overall measure of limitation. It includes limitations of any type and for any reason.

> *Not limited*--describes persons who were not limited in their usual age-appropriate work, school, or play activities, activities of daily living, instrumental activities of daily living, or in any other way due to a physical, mental, or emotional problem.

Limited--describes persons who were limited in some way due to a physical, mental, or emotional problem, including age-appropriate work, school, or play activities, activities of daily living, or instrumental activities of daily living.

Limited due to one or more chronic conditions--describes persons whose limitation was due to at least one condition that is considered chronic; this category is a subset of the "limited" category.

Limitation in work activity--Limitation in work activity status is based on a series of questions about the ability of adults aged 18-69 years to engage in work activity, regardless of whether they currently held a job. Persons with a limitation in work activity (Table 6) are a subset of persons who were limited in usual activity (Tables 3, 4).

Unable to work--describes adults who were not able to work at a job or business due to a physical, mental, or emotional problem.

Limited in work--describes adults who were able to work, but were limited in the kind or amount of work they could do due to a physical, mental, or emotional problem.

Not limited in work--describes adults who did not report any limitation in their ability to work at a job or business.

Chronic condition--A condition is considered chronic if (a) its onset was more than 3 months before the date of interview, or (b) it is a type of condition that ordinarily lasts more than 3 months. Examples of conditions considered chronic regardless of onset are diabetes, emphysema, and arthritis.

Early intervention services--Early intervention services are services designed to meet the needs of very young children with special needs or disabilities. They may include, but are not limited to, medical and social services, parental counseling, and therapy. Services may be provided at the child's home, a medical center, a day care center, or other location. They are provided by the state or school system at no cost to the parent.

Health status--See "Respondent-assessed health status."

Injury and poisoning episodes--Injury episode refers to a traumatic event in which the person experienced one or more injuries due to an external cause (e.g., a fall down a flight of stairs, motor vehicle traffic accident, etc.). A poisoning episode refers to the ingestion of or contact with harmful substances, as well as overdoses or misuse of any drug or medication. A medically consulted injury or poisoning episode refers to an injury or poisoning episode for which a health care professional was contacted either in person or by telephone for advice or treatment. Calls to a poison control center are also considered to be a contact with a health care professional.

Instrumental activities of daily living (IADLs)--See "Limitation in instrumental activities of daily living (IADLs)."

Overnight hospital stay--An overnight hospital stay is a measure of the number of times a person was hospitalized in the previous 12 months. Visits to a hospital emergency room that did not result in admission to the hospital are not included. Overnight hospital stays for the birth of a child are counted for both the mother and the child.

Period without health insurance coverage--A period without health insurance coverage may be of any duration and for any reason. Information on the number of months without coverage was collected for persons who had health insurance coverage at the time of interview. Number of months without coverage was collapsed into two categories for presentation in this report.

Reasons for no health insurance coverage--Persons without heath insurance coverage at the time of interview were asked the reasons for not having coverage. A maximum of five reasons could be reported. Persons who reported more than one reason within a category were counted only once for that category. Unknown reasons were included in the "other" category.

Respondent-assessed health status--Respondent-assessed health status was based on the question, "Would you say your health, in general, was excellent, very good, good, fair, or poor?" Information was obtained from all respondents, with proxy responses allowed for adults not taking part in the interview and all children aged 17 years and under.

Special education--Special education is teaching designed to meet the needs of a child with special needs or disabilities. It is paid for by the public school system and may take place at a regular school, at a special school, at a private school, at home, or at a hospital. It is designed for children 3-21 years of age, although data collected in NHIS are limited to children 17 years of age and under.

Time since last had health insurance coverage--Time since last had health insurance coverage was asked of persons who were not insured at the time of interview. Responses were reported in single months and collapsed for presentation in this report. “One month” includes durations of 1 month or less (but more than zero).

Appendix III

Tables of Unadjusted Estimates